

Application No.: 10/564,817
Amendment under 37 CFR 1.116
Reply to Office Action dated July 27, 2009
November 27, 2009

AMENDMENTS TO THE CLAIMS

Please substitute the following claims for the pending claims with the same numbers respectively:

Claim 1 (Currently amended): A data area managing method for an information recording medium, the method is used in an information processor that manages data stored in an information recording area in the information recording medium as [[a]] file information, wherein

when said information processor accesses area management information that manages a free area state and link state of the information recording area in said information recording medium as the file information,

~~access size is changed according to processing executed by said information processor.~~

reading said file information of a first access size from said area management information when retrieving a free area from said area management information; and

reading said file information of a second access size smaller than the first access size from said area management information when retrieving link information from said area

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management information.

Claim 2 (Cancelled):

Claim 3 (Currently amended): The data area managing method according to claim 2, ~~wherein as the access size to said area management information,~~

~~when said information processor executes said free area retrieval processing, a first access size determined from physical characteristics of said information recording medium or a size less than the first access size is used, and~~

~~when said information processor executes said link destination acquisition processing, a second access size that is an access unit of said information recording medium is used 1,~~
wherein said second access size is identical to a minimum reading and writing size of said information recording medium.

Claim 4 (Cancelled):

Claim 5 (Cancelled):

Claim 6 (Previously presented): The data area managing method according to claim 1, wherein two caches each having a

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different management block size are provided as area management information caches in said information processor, and by alternatively using said two caches for different purposes, said access size is changed according to the processing executed by said information processor.

Claim 7 (Previously presented): The data area managing method according to claim 6, wherein the processing executed by said information processor comprises:

a free area retrieval processing for retrieving a free area from said area management information; and

a link destination acquisition processing for acquiring a linked destination from said area management information.

Claim 8 (Currently amended): The data area managing method according to claim 7, wherein as an alternative use of said two area management information caches,

when said information processor executes said free area retrieval processing, said information processor uses a first area management information cache having a physical management block size determined from physical characteristics of said information recording medium or less, and

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when said information processor executes said link destination acquisition processing, said information processor uses a second area management information cache smaller than said first area management information cache as an access unit of said information recording medium.

Claim 9 (Cancelled):

Claim 10 (Cancelled):

Claim 11 (Previously presented): The data area managing method according to claim 8, wherein said second area management information cache is used only for an exclusive processing for reading, and

said first area management information cache is used when information stored in said area management information is changed.

Claim 12 (Currently amended): An information processor which accesses an information recording medium that manages data stored in an information recording area by a file system comprising:

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a FAT cache for reading and storing area management information which manages a free state and link state of said information recording area from said information recording medium;

a volatile memory for holding data including: a start address of each block, location of the area management information stored in each block on said information recording medium, size of each block, and presence or absence of update, as FAT cache management information for managing said FAT cache by dividing said FAT cache into a plurality of blocks;

a FAT cache controller for referring to and updating said FAT cache management information and controlling a read and change of said area management information to said FAT cache; and

a file system controller for accessing the area management information through said FAT cache controller and storing data in the information recording medium as a file, wherein

said FAT cache has at least one block having a first access size and at least one block having a second access size; and said second access size is smaller than said first access size.

Claim 13 (Currently amended): The information processor according to claim 12, wherein said ~~FAT cache has at least one block having a first access size and at least one block having a~~

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~~second access size; and said first access size is a physical management block size determined from physical characteristics of said information recording medium and said second access size is an access unit~~ second access size is identical to a minimum reading and writing size of said information recording medium.

Claim 14 (Cancelled):

Claim 15 (Previously presented): The information processor according to claim 13, wherein said file system controller accesses a block having the first access size included in said FAT cache through said FAT cache controller when a free area retrieval processing for retrieving a free area from said area management information is performed, and accesses a block having the second access size included in said FAT cache through said FAT cache controller when a link destination acquisition processing for acquiring a linked destination from said area management information is performed.